

ABSTRACT OF THE DISCLOSURE

A diode which eliminates the generation of local avalanche breakdown phenomenon when static surges in the backward direction are applied and has excellent properties to withstand electrostatic breakdown is to be provided. A P-type impurity diffused region of high concentration to be an anode and an N-type impurity diffused region of high concentration to be a cathode that surrounds the P-type impurity diffused region are formed on the front surface of an N-type silicon well region.

The surface of the N-type silicon well region on which the impurity diffused regions are formed is covered with an interlayer dielectric, and a metal interconnect layer is formed thereon to spread to the border line of the N-type impurity diffused region and electrically connected to the P-type impurity diffused region. Accordingly, a P-type inversion layer, IP, is uniformly formed in a separation area between the impurity diffused regions when static surges in the backward direction are applied, preventing a local avalanche breakdown phenomenon.